

NASA DEVELOP – 2022 Fall Potential Project List

NOTE: These project ideas are **tentative** and **subject to change**. Projects will be conducted either in-person* at a DEVELOP location or virtually, and each node will conduct 1-2 projects for the 2022 fall term. This list may be updated throughout the application period.

The DEVELOP fall 2022 term will offer opportunities for in-person or virtual participation, by project. The work environment of the opportunity will be dependent on the project and DEVELOP location. When selecting your preferred location(s), please pay attention to the type of opportunity selected based on the location and project offers on this document.

*If prior to the start of the fall term it is determined that onsite participation is no longer feasible due to evolving pandemic issues, we will revert locations back to virtual participation as needed. This is a fluid situation, and we are using current information to make decisions. We appreciate your flexibility and understanding if changes are required.

In-person/virtual project opportunities –

Location	In-person Project(s)	Virtual Project(s)
AL – Marshall	X	
CA – Ames		X
CA – JPL	X	
CO – Fort Collins	X	
GA – Athens	X	
ID – Pocatello	X	
MA – Boston	X	X
MD – Goddard	X	
NC – NCEI	X	
VA – Langley	X	X
VEJ – Environmental Justice Projects		X
PUP – Pop-up Location at University of Wyoming	X	

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Proposed project list by DEVELOP Location –

AL – Marshall

- ▶ Mesoamerica Ecological Forecasting: Assessing Land Cover Change and Habitat Connectivity to Inform Management Planning for the Mesoamerican Biological Corridor *(In-person project)*
- ▶ Mesoamerica Urban Development: Evaluation of the Effects of Urban Expansion on Social and Environmental Vulnerability in Central America *(In-person project)*

CA – Ames

- ▶ Maldives Climate: Monitoring Shoreline Change and Island Loss in Response to Sea Level Rise *(Virtual project)*
- ▶ San Diego Water: Monitoring Coastal Water Quality After Storm-Induced Runoff to Improve Pollution Monitoring Efforts *(Virtual project)*

CA – JPL

- ▶ Gulf of Mexico Health & Air Quality II: Mapping Methane Emission Plumes Using Sunlint-configured Imagery for Monitoring Offshore Oil & Gas Activity *(In-person project)*
- ▶ Western Tennessee Water Resources: Leveraging High Resolution Remotely Sensed Evapotranspiration Data to Assess Drought Risk and Identify Disparities in the Memphis Sand Aquifer *(In-person project)*

CO – Fort Collins

- ▶ Colorado Eastern Plains Agriculture: Rangeland Monitoring to Inform Grazing Management in Eastern Colorado *(In-person project)*
- ▶ Carmel Valley Urban Development: Monitoring Land Cover Change to Understand Conservation Outcomes in Coastal California *(In-person project)*

GA – Athens

- ▶ Georgia Disasters: Evaluating the Impacts of Hurricane Irma on Georgia Heir Property Owners Using NASA Earth Observations *(In-person project)*
- ▶ Yellowstone Ecological Forecasting II: Utilizing Earth Observations to Assess Change in Aspen Extent and Health in Northern Yellowstone National Park *(In-person project)*

ID – Pocatello

- ▶ Idaho Wildfires II: Assessing Drought and Fire Conditions, Trends, and Risk to Inform State Mitigation Efforts and Bolster Monitoring Protocol in Central Idaho *(In-person project)*

MA – Boston

- ▶ Gulf of Maine Water Resources: Assessing the use of NASA Earth observations for identifying harmful algal blooms of *Alexandrium catenella* in the Southern Gulf of Maine *(In-person project)*
- ▶ Kansas City Disasters II: Applying NASA Earth Observations to Assess Environmental and Socioeconomic Factors of Urban Flood Vulnerability in Kansas City, Kansas *(Virtual project)*

MD – Goddard

- ▶ Arizona Water Resources II: Utilizing Earth Observations to Refine Juniper Tree Mortality Assessments in Flagstaff, Arizona *(In-person project)*
- ▶ Bryce Canyon Water Resources: Monitoring Vegetation Health and Water Availability in Bryce Canyon National Park for Drought Stress Mitigation Planning *(In-person project)*

NC – NCEI

- ▶ Gatlinburg Wildfires: Evaluating the Role of Soil Moisture in Determining Vegetation Health, Fuel Loads, and Wildfires in the Gatlinburg and Bootleg Fires *(In-person project)*

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VA – Langley

- ▶ Youngstown & Warren Disasters: Mapping Flood Susceptibility, Vulnerability, and Risk in Northern Ohio to Inform Stormwater Management and Flood Mitigation Efforts (*Virtual project*)
- ▶ Keweenaw Bay Water Resources: Characterization of Shoreline Change and Assessment of Shoreline Armoring Impacts on Beach Morphology and Sediment Load in Lakes Superior's Keweenaw Bay (*In-person project*)

VEJ – Environmental Justice Projects

- ▶ Wichita Climate II: Mapping and Modeling Land Cover, Heat Vulnerability, and Intervention Scenarios to Inform the City of Wichita's Climate Adaptation and Mitigation Plans (*Virtual project*)
- ▶ Milwaukee Urban Development II: Assessing the Drivers of Urban Flooding Vulnerability in Milwaukee using NASA Earth Observations (*Virtual project*)

PUP – Pop-up Location at University of Wyoming

- ▶ Shoshone River Water Resources: Assessing Sediment Inputs into the Shoshone River in Wyoming to Determine Areas for Protection and Restoration Practices (*In-person project*)